



A higher level of performance

Application Reference

Tailings Thickeners - Coal

Improving the efficiency of the tailings thickener in a coal prep plant



Application Problem:

The customer had multiple coal types, that they processed through the coal prep plant. Some of the coal types had different settling characteristics. This affected the tailings thickener efficiency and the "clarometer" instrument that tested settling rates in the incoming feedwell, failed from time to time, which meant that the floccing rate changed and the suspended solids increased, decreasing the quality of the return water back to the prep plant.

Solution:

We provided a high powered 3 crystal sonar transducer with automatic scum cleaning impact plate. The two outputs of the sonar system provided,

1. BED Level (Heavy density compacted interface)
2. Hindered/fluffy layer (low density interface)

1. This heavier 'BED' level output, was used as one of the input loops, to control the underflow pump, guaranteeing an optimized density being pumped to the tailings dam.

2. The hindered/fluffy layer was used to monitor the deviation distance between it and the heavier compact bed. As the deviation moved greater than a set distance flocculent dosing increased. As the deviation decreased flocculent dosing decreased.

The high powered 3 crystal array transducer, penetrated the suspended solids, even under poor settling conditions. The hindered/fluffy layer output could also be used, in the floc dosing control loop to automate this function if the "clarometer" failed.

Hawk manufactures the largest range of sonar transducers to provide optimized performance, for all bed level thickener applications e.g concentrate thickeners etc.

Ordering information:

Tailings thickeners part no: OSIRDYX + OSIRT302S4XC6 + OSIRME-L3 + OSIRSC-A

Application guaranteed!

Hawk is a world leader in level, position and flow measurement, providing cutting edge equipment to the global industrial market. We have 30 years of experience and a record of success in a wide range of areas including mining/mineral processing, water supply/waste water, bulk material handling and chemical. Our on-going commitment is to provide industry leading technology and cost effective solutions.



ORCA Sonar awarded "Product of the Year" twice.

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